

UNITED TELEPHONE COMPANIES

CC DOCKET 92-24

ATTACHMENT D

United Telephone System Tariff F.C.C. No. 5
Transmittal No. 287

Description and Justification

Section 4.0 - Cost and Rate Development

4.1 Cost Development

The cost development methodology presented herein identifies the direct costs of United's CCS/SS7 Interconnection and LIDB Access Services. Price floors are established for each rate element using this direct unit cost methodology.

CCS/SS7 Interconnection Service - Costs

STP Port - the direct capital cost for an STP port is determined using the Common Channel Signaling Cost Information System (CCSCIS) model. The cost components include: 1) STP port card and Right To Use (RTU) fee, 2) digital patch panel, 3) 56.0 kbps channel service unit (CSU)/data service unit (DSU), 4) Cluster controller and RTU fee, and 5) cable and cabinet. This direct capital cost is expanded by United specific factors to develop loadings such as uninterruptable power, land and buildings, and miscellaneous investments. An annual carrying charge factor is applied to this direct capital cost with loadings to

include additional expenses such as depreciation, return, taxes and maintenance. The direct capital cost with loadings plus the annual carrying charges produces an annual cost for an STP port. The annual cost divided by 12 months produces the monthly cost per STP port.

The monthly fully distributed cost (FDC) of the STP port is developed by multiplying the monthly cost by an overhead loading factor, effectively establishing the price ceiling for this element. This overhead factor is developed by dividing the fully distributed cost (FDC) annual factor by the direct annual cost factor, where:

- the FDC Factor is the Switched Local Transport revenue requirement (calculated at the authorized 11.25% rate of return) divided by the Switched Local Transport investment as reported by United on its 1990 ARMIS 43-01 report.
- the direct annual cost factor is the direct annual costs divided by the associated investments.

Exhibit 4-1 identifies the direct capital costs, and develops the various loadings and total monthly STP port cost. Exhibit 4-2 shows the development of the overhead loading factor.

CCS/SS7 Access Link (Recurring Rates) - as discussed previously, the CCS/SS7 Access Link is comprised of a number of recurring rate elements that support the provisioning of a 56.0 kbps service link or an optional 1.544 Mbps service link.

The direct capital costs are determined for each recurring rate element comprising the two services. Direct capital loading factors and annual carrying charge factors are applied to develop the CCS/SS7 Access Link annual costs for each element. These annual costs are divided by 12 months producing monthly costs per element.

The monthly FDC of each CCS/SS7 Access Link element is developed by multiplying the monthly costs by the overhead loading factor (Exhibit 4-2) to establish the price ceilings. Exhibits 4-3 through 4-9 identify the direct capital costs, and develop the various loadings and total monthly costs for each 56.0 kbps and 1.544 Mbps recurring rate element supporting the CCS/SS7 Access Link.

CCS/SS7 Access Link (Nonrecurring Charges) - the total costs are determined for the installation activity required for service establishment of 56.0 kbps service

terminations, 1.544 Mbps service terminations and DS1 to DS0 multiplexing equipment. The total installation costs are comprised of engineering, special access line and access connection costs. Each of these costs are determined by multiplying the functional time required for installation by the fully loaded labor rate of the work group performing the function. Exhibits 4-10 through 4-12 show results of the nonrecurring cost analysis for CCS/SS7 Access Link support.

LIDB Access Service - Costs

Query Transport - the direct capital cost is determined for LIDB specific components and transport facilities from the STP port to the SCP port and back. These components include: 1) STP switching, 2) STP exit port, and 3) provisioning links from the STP to the SCP including STP terminating equipment. As with the STP port cost development, United specific factors and annual carrying charge factors are applied to develop the Query Transport annual cost. The annual Query Transport cost is divided by the forecasted queries processed (see Exhibit 3-2) producing the cost per query transport.

The per Query Transport cost is multiplied by the

overhead loading factor (Exhibit 4-2), again establishing an effective price ceiling for this rate element. Exhibit 4-13 identifies the direct capital costs, and develops the various loadings and monthly per query FDC of the Query Transport rate element.

Query - the direct capital cost is determined for the LIDB specific costs at the SCP, common costs associated with the SCP and LIDB administration costs. The LIDB specific components include: 1) link termination equipment at the SCP, 2) SCP equipment used for LIDB functionality only, and 3) link expense between the Data Base Administration Center (DBAC) and the SCP locations. United specific factors and annual carrying charge factors are applied to develop the direct LIDB related Query annual cost.

Additional costs for DBAC administration and Intelligent Network Operation (INO) are added to the direct annual cost producing the total annual Query cost. These additional costs are: 1) DBAC labor and expenses related to the monitoring and related functions of the Data Base Administration System (DBAS) computer, 2) DBAC lease and administrative expenses, and 3) expense associated with the maintenance of DBAS software. The total annual Query cost is divided by the forecasted

queries processed (see Exhibit 3-2) producing the cost per query.

The per Query cost is multiplied by the overhead loading factor (Exhibit 4-2), producing the total per Query cost. Exhibit 4-14 identifies the direct capital costs, develops the various loadings and total per query cost of the Query rate element.

LIDB Access Order Charges - a separate nonrecurring rate element for the LIDB Access Order is not proposed in this filing. Rather, the existing switched access nonrecurring rate for this function will be applied and is found in Section 5.2.3 of UTS Tariff 5.

The decision to use the current switched access order charge was predicated on the basis of a comparison between: 1) the nonrecurring costs associated with order processing time for placing new or changed OPC information in United's STPs and SCPs, and 2) the nonrecurring costs associated with order processing for non-LIDB switched access services. It was determined that, though there are some functionally different administrative duties performed, the total nonrecurring costs associated with labor times and loadings for the two types of functions are basically equal.

Exhibit 4-15 shows the development of LIDB associated access order nonrecurring costs and their comparison to the currently effective nonrecurring costs (and charge) for switched access orders.

4.2 Rate Development

The price floor for each rate element is determined using the cost methodology discussed in Section 4.1 above. Additionally, a price ceiling (full FDC cost level) is also established and discussed in that section. Rates set above the price floor assure the recovery of an appropriate level of joint and common costs. This pricing methodology focuses cost recovery on the cost causer and guards against cross-subsidization by the general body of switched access customers. Rates set equal to or below the price ceiling assure that the costs are not recovered over the level of authorized rate of return for the service.

All rates for CCS/SS7 Interconnection and LIDB Access Services are summarized on Exhibit 4-16. The summary includes the price floor and ceiling for the element as developed in Section 4.1

CCS/SS7 Interconnection Service - Rates

STP Port Charge - as developed on Exhibit 4-1 and shown on Exhibit 4-16, the STP Port Charge (a monthly flat recurring rate) is established near the price ceiling. This will not discourage the participation of both high and low volume customers to access United's CCS/SS7 network.

CCS/SS7 Access Link - the recurring rates for the CCS/SS7 Access Link are established at the price ceiling. Exhibits 4-3 through 4-9 show the development of the rates for the 56.0 kbps and 1.544 Mbps services that support the CCS/SS7 Access Link rate element.

Nonrecurring charges for these services are set at cost and are shown on Exhibits 4-10 through 4-12. All recurring and nonrecurring CCS/SS7 Access Link rates are summarized on Exhibit 4-16.

LIDB Access Service - Rates

Query Transport and Query Charges - validation services have become significantly competitive over the past few years which has led to industry charges in the range of \$.03 to \$.06 per validation query (contractual

agreements). These charges, however, include both components of LIDB access, i.e., Query Transport and Query. As shown on Exhibit 4-13, the Query Transport Charge of \$.0016 plus the Query Charge of \$.0384 (Exhibit 4-14) sums to \$.04 which can be favorably compared to the industry range of \$.03 to \$.06 per query. United's decision to price these elements at the price ceiling still positions the charges at the low end of the industry range which will promote customer participation.

LIDB Access Order and Charge - as shown on Exhibit 4-15, the LIDB access order charge is established at cost. This rate element is summarized on Exhibit 4-16.

CERTIFICATE OF SERVICE

I, Melinda L. Mills, hereby certify that I have on this 21st day of March, 1992, sent via hand delivery a copy of the foregoing "Direct Case of the United Telephone Companies" CC Docket No. 92-24 filed this date with the Secretary, Federal Communications Commission, to the persons listed below.

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